Issue Brief – Engineering & Computer Science Initiative

NUMBER USHE-04

SUMMARY

The Legislative Fiscal Analyst recommends ongoing funding for the Engineering and Computer Science Initiative in the amount of $5,045,200 and $4 million in one time funding in FY 2008. This level of funding will bring the Initiative's funding to the amount originally requested in 2001

OBJECTIVE

The objective of the Engineering and Computer Science Initiative is to double the number of graduates in engineering and computer science disciplines by 2006 and triple that number by 2009. As reported by the Technology Initiative Advisory Board, since 2000, the number of graduates with a computer science degree has increased 19% (compared to a nationwide decrease in graduates of 22%) and the number of engineering graduates has increased by 53%.

DISCUSSION AND ANALYSIS

In 2001, the Legislature passed S.B. 61 which established an Engineering and Computer Science Initiative, showing its recognition of the economic benefit that these graduates would be to the State. To advance the initiative, the Legislature has appropriated $11.2 million to the system of higher education since its inception. An important component of the legislation requires USHE institutions to evaluate current program offerings and reallocate funds internally to leverage the state appropriated dollars to enhance the objective of this initiative. The following table demonstrates how the institutions have complied with the spirit and intent of this technology initiative:

Engineering and Computer Science Initiative

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
State Appropriations:						
Ongoing	$1,000,000	$2,000,000	$500,000	$500,000	$1,500,000	$500,000
One-time	$2,500,000	$1,000,000	$0	$500,000	$500,000	$700,000
USHE Matching Funds						
University of Utah	$513,000	$800,000	$180,000	$207,000	$680,000	$250,000
Utah State University	$308,800	$700,000	$100,000	$113,000	$475,000	$185,000
Weber State University	$235,900	$200,000	$35,000	$35,000	$75,000	$0
Southern Utah University		$75,000	$50,000	$30,000	$30,000	$50,000
Snow College				$20,000	$30,000	$15,000
Dixie State College		$50,000	$35,000	$20,000	$30,000	$0
College of Eastern Utah				$20,000	$30,000	$0
Utah Valley State College		$175,000	$70,000	$35,000	$75,000	$0
Salt Lake Community College			$30,000	$20,000	$75,000	$0
Total Matching	$1,057,700	$2,000,000	$500,000	$500,000	$1,500,000	$500,000
Total Funding	**$4,557,700**	**$5,000,000**	**$1,000,000**	**$1,500,000**	**$3,500,000**	**$1,700,000**

In its report to the Legislature, the Technology Initiative Advisory Board states that "With the State's economy on the rise, the demand for engineers and computer scientists has reached unprecedented levels. A workforce survey of companies statewide conducted in October 2006, revealed over 800 current open positions for engineers and computer scientists among approximately 100 companies, with a projected need for 780 additional hires in the next 12 months. Several of these companies are experiencing constraints to business growth due to the lack of qualified workers."

The following table shows the comparison in the number and types of degrees granted in the base year (2000) and the most recent year (2006).

Engineering and Computer Science Inititiative
Degrees Awarded

	2000	2001	2002	2003	2004	2005	2006
Computer Science							
Associate	178					199	182
Bachelors	291					377	352
Masters	36					77	72
Doctorate	8					8	4
Subtotal	513	474	627	701	724	661	574
Engineering							
Associate						349	290
Bachelors						640	663
Masters						287	295
Doctorate						64	70
Subtotal	862	828	749	1,081	1,277	1,340	1,309
Total	1,375	1,302	1,376	1,782	2,001	2,001	1,883